8.0 A HIGH-SPEED TRAIN SYSTEM ACTION PLAN

8.1 Conclusion

A combination of a high-speed train system and higher-speed conventional train and bus networks will be essential for meeting the mobility needs of more than 45 million Californians in 2020 and beyond. These combined networks will enhance the street, freeway, and highway systems, as well as the state's major commercial airports, which all will need to expand to meet the projected growth. This should not be a surprise since other areas with comparable circumstances (such as France, Japan, and the Northeast Corridor) have followed this same path.

Meeting the mobility needs of today's population (let alone an estimated increase equal to the current population of Texas) will not be either easy or inexpensive. But, this is an opportunity for Californians to think beyond our experience and plan beyond our tenure. Throughout the state's history, decision-makers and leaders have lived by this dictum. As the century closes, Californians today enjoy the fruits of their visions, hard work and sacrifices. It is our turn to rise to the challenge.

Based on the experience of other countries and projections specific to California, a high-speed train system is a smart investment that would return a benefit of at least two dollars for every public dollar invested. More importantly, once built, the service provided by the system, will yield annual operating surpluses in excess of \$300 million. For this venture to achieve its potential and to provide the surplus benefits, it should be planned, built, and operated as if it were a business investment.

Approaching the high-speed train system as a business will require adopting a different mind-set than that which has shaped the planning, building and operating of trains for over a half-century. Rather than seeking to realize primarily social and political objectives, which require substantial public subsidies to construct and operate, the mind-set that drives the development of the high-speed train system should focus on returning substantial financial,

economic and environmental benefits for whatever public and private investments are made. Failure to apply the new mind-set to this system will place the high-speed train system in jeopardy of needing greater public capital and requiring operating subsidies.

The Authority's statutory authorization and mandates underscore this new mind-set and require the following essential elements for a successful and profitable high-speed train:

- An entity with sole responsibility to plan, build and operate the system;
- A financing plan that limits public investment to capital construction only;
- An ability to procure the best talents and technology available in the world;
- An ability to enter into design-build contracts; and
- An ability to franchise operations to the private sector.

These essential elements should be preserved in order to achieve the financial, economic and environmental benefits described in this plan.

Some high-speed train services in Europe and Japan have generated sufficient revenues to pay for the construction and operation of those services. California will face a different situation. A high-speed train in California must compete with automobiles and airplanes, which have enjoyed decades of public support. For this reason, the initial segments of

A high-speed train system is a smart investment that would return a benefit of at least two dollars for every public dollar invested.

the high-speed train network will depend on public resources to construct.

The Authority has sufficient information and analyses to conclude that a high-speed train is a smart investment and should proceed quickly. The next step in the development of the system should be carrying out a program EIR. This phase is the logical and appropriate next step in the project for the following reasons:

- The further engineering and environmental analyses that are part of the initial environmental phase of the project will define with greater specificity the high-speed train technology, corridors and station locations included in this plan.
- The official input of federal, state and local agencies about the project, which is required during this phase, will help further hone the capital costs of the project even though we are assured by the best technical advisors in the world that the system can be built for the \$25 billion estimate included in this plan. It is reasonable to anticipate that the federal government would become a financial partner in this project, reducing the capital needs to be borne by the California taxpayer.
- The financial plan will benefit from substantive discussions with the private sector about investing in the project. Potential investors will be most interested in how the ridership and revenue projections compare with those of other agencies and their assessment of the future. For example, the business plan assumes annual growth in intercity air and auto travel of 2.5% and 1.3%, respectively. The Federal Aviation Administration applies an annual growth rate of 3.5% for air travel, and the Federal Highway Administration applies an annual growth rate of 2.0% to highway travel. In addition, the business plan does not assume increases in airport congestion or airfare over the next 20 years over what they are today. Ridership and revenues would be substantially higher if growth rates in airfares and air and highway congestion approach or exceed those used by the above agencies. Higher revenues that result from more congestion or increased airfares would reduce the investment the people of California will need to make.

As daunting as building a high-speed train network in California may seem, proceeding in stages is within the political, policy and procedural grasp of state and regional agencies today. High-speed trains are an accepted and relied-upon element of the national transportation systems of countries California claims as major trading partners. High-speed trains are neither futuristic nor far-fetched; they are essential to the economic vitality and quality-of-life of those very nations California considers friends and competitors



Figure 8.1
Recommended Routes to be Studied in the Environmental Clearance Process

on the world stage. A high-speed train network promises to achieve similar benefits for California.

Whether a high-speed train network is built or not, the reality is that California's decision-makers will need to determine how to provide the infrastructure 45-60-80 million Californians will use in this new century. Providing this infrastructure — transportation, power, water, waste — will take one-to-two decades to complete. However, decisions today, with concrete objectives to be obtained in phases, can yield near-term benefits to be enjoyed in a few years. And those decisions, if planned correctly, can contribute to a system that will accommodate the growth as it occurs. This business plan spells out just such an approach.

8.2 Recommendations

The Authority recommends that the Governor and the Legislature take the following actions to start the state toward a 21st century passenger train network worthy of California's needs, desires, and aspirations. These recommendations are aimed at achieving the goal of an efficient and prudent high-speed train network for the year 2020 and beyond by proceeding as expeditiously and cost-effectively as possible in discrete stages to preserve future options, protect corridors and provide early benefits to the people of California.

1. Initiate a formal environmental clearance process with a state-level program environmental impact report (EIR)/federal-level Tier I environmental impact statement (EIS) on the high-speed train network described in this plan (see Figure 8.1).

Both state and federal law prescribe what is involved in preparing a program EIR and Tier I EIS. The Governor and Legislature should initiate the EIR/EIS effort by allocating \$25 million in state funds over the next two fiscal years. By expending \$12 million in the 2000-2001 state fiscal year, the Governor and Legislature can set in motion the process to secure the engineering, environmental, and outreach services required by statute. Allocating the remaining \$13 million in the 2001-2002 state fiscal year enables completion of this phase of the project according to the timetables set forth in the regulation and statute.

During this phase, detailed engineering work will provide approximately 10 percent of the design. Detailed environmental studies will provide a baseline of data that will serve as the foundation of any further environmental analysis as part of the clearance process. The outreach effort will adhere to state and federal regulations to ensure that not only are Californians provided appropriate notice and opportunity to comment on the project but community and

environmental justice issues are appropriately documented as well.

Completion of this phase will enable right-of-way to be preserved through hardship purchases, provide detailed phasing of the construction of the project, establish performance benchmarks to guide procurement of the system, and narrow the statewide corridor alternatives to be included in project specific EIRs/EISs.

At the conclusion of the program EIR/Tier I EIS, decision-makers can reevaluate funding options and strategies based on more detailed analyses and information — as well as the input of stakeholders spanning the spectrum from local cities to neighborhood organizations. If the project is deemed viable at the conclusion of this phase, an additional \$350 million would be required over the following three-to-four years to achieve full environmental clearance and achieve a 30 percent level of engineering design. The Authority, or its successor, would then have the option to entertain proposals for the private sector to enter into a design-build contract and a franchise with the private sector to operate and maintain.

2. Increase funding and accelerate planning and programming for intercity and commuter rail improvements that can provide enhanced, higher-speed service to Californians earlier and ultimately become part of the high-speed train network.

At the same time that a formal environmental process is initiated on the high-speed train network, work should begin to improve the current intercity and commuter rail systems to accelerate the introduction of higher-speed conventional passenger train service in the state. In addition, these improvements should be planned to incorporate eventual statewide high-speed train service.

As a principal funding partner in the state's transportation system, the state is in the ideal position to initiate this effort, which is consistent with the mandate embedded in Propositions 108, 111 and 116. The early part of this decade is an auspicious time to explore the opportunities and benefits of higher-speed conventional passenger rail technolo-

gies, especially tilt-train technology in revenue service in Europe and in development in North America. Introducing such technology is consistent with the ideas expressed in this business plan and should be developed in such a manner that the introduction of electrified high-speed train service is a logical next step.

State and regional agencies can implement such an effort, and policies are in place at both levels to accommodate such actions.

3. Begin an aggressive statewide effort to increase federal funding for both conventional and high-speed trains in California. In addition, this effort should include working with the Federal Railroad Administration (FRA) and high-speed train manufacturers to resolve safety and compatibility issues.

Implementing the first two items will necessarily involve federal agencies, principally the FRA, the freight railroads, and train manufacturers. A key planning assumption of the Authority is that the high-speed train system must be physically separate and operated entirely apart from any conventional rail services — even when operating at reduced speeds. Federal regulations dictate that the Authority make this assumption, even though technical and operational strategies to incorporate different levels of rail service on the same tracks have been developed in Europe and Asia.

California should aim toward enabling the safe and efficient sharing of track in the state, particularly in urban areas where sufficient space may not exist to permit separate facilities, as is the case in other parts of the world. The impact of such changes on the costs and operation of the high-speed train service, let alone existing services, would be immensely positive, with the ultimate benefit accruing to California's citizens in the more cost-effective and efficient use of its existing investment in rail. The Governor and the Legislature are key to pursuing such changes at both the federal regulatory and legislative levels, as well as encouraging safer equipment from manufacturers.

Moreover, the impact of high-speed train service in the nation's most populous state — and the world's seventh-largest economy — is in the national interest. California should pursue federal funding that contributes significantly to completing the different phases of the project, assisting state and regional and local entities in incorporating high-speed train service in their areas, and reducing the state's share of the investment in the statewide network.

However, in pursuing federal funding, no existing federally-funded project in the state should be disadvantaged. The additive benefits of the high-speed train system promise to be enormous, and the project is deserving of federal investment on its merits. This, too, is an effort that can begin immediately with existing state and regional agencies.

4. Encourage state, regional and local entities to include high-speed trains in their planning for the future.

Californians have commented to the Authority that they would like to see greater attention paid to planning for the future transportation needs of the state. This does not necessarily mean planning entirely new facilities but making better use of existing highways, freeways, airports, and rail networks. The time is now to incorporate high-speed trains into the state's transportation future and create the opportunities for such a network to fit seamlessly with the highway/freeway, air, and conventional rail networks that exist today.

Given the statutory requirements for the development of 20-year regional transportation plans that conform to air quality findings, the next round of developing such plans should include a statewide high-speed train network, as well as enhanced, higher-speed intercity and commuter rail service. The Southern California Association of Government's 1998 regional transportation plan contains a regional Maglev high-speed train system. This is an excellent beginning that should be enhanced by the inclusion of the state system as part of the region's 2000 plan.

By adding a high-speed train component to the 2000 plans, state, regional and local agencies will be able to incorporate the benefits of the statewide system on a regional basis, most notably the air quality and travel time savings benefits. In addition, inclusion in the plans will help advance the regional and local discussions about locating stations and ensuring adequate transportation access to the stations. Existing state agencies, with some modification of policy, can initiate this effort.



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Timetable Example for 2020

This train schedule represents one of many options for high-speed train service in the year 2020. It illustrates how such a service could provide Californians with frequent, reliable high-speed travel. However, it is only a conceptual timetable based upon potential station locations and the best planning data currently available.

The actual schedule for the year 2020 will depend largely upon the market that exists at that time and will change based on demand, similar to airline schedules.

Types of Service:

The example high-speed train system is over 700 miles long and serves 23 stations. Passengers can travel to and from any station using one of three basic lines:

- 1) San Francisco San Diego (Blue Line),
- 2) Sacramento San Diego (Gold Line), or
- 3) San Francisco Sacramento (Green Line).

There are five levels of service:

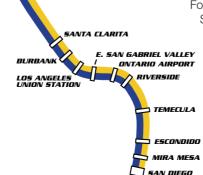
- Express stopping at one station between origin and destination
 - **Semi-Express** stopping at a limited number of stations
 - Local stopping at every station
 - Suburban Express stopping frequently within the major metropolitan regions, but running as an express train between them
 - Regional local trains that begin or end in the Central Valley (these mostly operate during commute hours)

2020 Weekday Train Schedule:

Example tables representing weekday train schedules for the year 2020 are shown for each line. Each column represents a train. The top number of each column designates the departure time and station location for the train. Each subsequent number down the column represents an arrival time at the next station stop.

These also represent boarding times, since the trains will depart promptly 2 minutes after their arrival time.

Columns that have arrows between the arrival times signify an express train. These trains only stop where arrival times are shown. For example, the first northbound Blue Line express train from San Diego leaves at 5:05 a.m. and arrives at Los Angeles Union Station at 6:05 a.m. This train continues as an express train all the way to downtown San Francisco, arriving at 8:37 a.m.

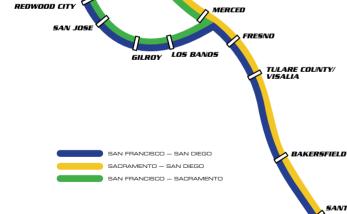




ote: Superscript denotes local service between San Diego and Los Angeles.

Represents an example of statewide weekday train scheduling of future proposed HSR service. Does not represent optimal train timing for all cities served. Based on conceptual operating plan of daily frequency and stopping patterns. No operations modeling or schedule optimization/refinement analysis has been completed for this example. In some cases, train departure times adjusted at intermediate stops to avoid scheduling conflicts.





SACRAMENTO

STOCKTON

MODESTO

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San Jose	SJ		551a	621a	•	711a	731a	•	806a	816a	826a	•	851a	911a	931a	•	951a 1	1021a	•	1051a	1131a	1211p	•	1241p	101p	131p	•	151p	206p	•	246p	321p	356p	•	441p	• 51	6p 541	p 551p		611p	621p	641p	636p	701p	711p	*	801p	926p	•
Gilroy	GIL		606a	636a	*	•	746a	•	821a	831a	841a	•	7	*	946a	* 1	006a 1	1036a	*	1106a	*	1226p	*	*	•	146p	•	206p	221p	•	•	336p	•	*	456p	53	1p 556	р 606р	•	626p	636p	656p	•	716p	726p	*	•	941p	*
Los Banos	LB		622a	•	*	•	•	•	•	847a	•	•	7	•	•	· 1	022a	•	*	•	•	1242p	•	•	•	•	•	•	237p	•	•	*	•	*	512p	•	612	p 622p	•	•	•	•	•	•	742p	*		957p	*
Fresno	FRO		648a	•	•	759a	•	•	•	913a	•	•	939a	•	•	· 1	048a	•	*	•	1219p	108p	•	129p	•	121p	•	•	303p	•	334p	•	444p	*	538p	•	638	р 648р	•	•	•	•	724p	•	808p	*	849p 1	1023p	*
Tulare	TUL		705a	•	*	•	•	•	•	930a	•	•	7	•	•	· 1	105a	•	*	•	•	125p	•	•	•	•	•	•	320p	•	•	*	•	*		•	655	р	•	•	•	•	•	•	825p	*	· * /	1040p	*
Bakersfield	BAK	500a	731a	•	•	836a	856a	•	•	956a	•	•	1016a	•	1056a	· 1	131a 1	1146a	•	1216p	1256p	151p	•	206p	•	256p	•	316p	346p	•	411p	•	521p	*		•	721	р	•	•	746p	•	801p	•	851p	*	926p 1	1106p	*
Santa Clarita	SC	532a	803a	812a	*	•	928a	•	957a	1028a	1017a	•	7	•	1128a	· 1	203p 1	1218p	•	1248p	•	223p	•	•	•	328p	•	348p	418p	•	•	512p	•	*		70	7p 753	р	•	802p	818p	832p	•	852p	923p	*	· * /	1138p	*
Burbank	BUR	547a	818a	827a	•	•	943a	•	1012a	1043a	1032a	•	7	•	1143a	· 1	218p 1	1233p	*	103p	•	238p	•	•	•	343p	•	403p	433p	•	•	527p	•	*		72	2p 808	р	•	817p	833p	847p	•	907p	938p	*	▼ 1	1153p	*
Los Angeles	LA	558a	829a	838a	820a	925a	954a	930a	1023a	1054a	1043a	1035a	1105a	1115a	1154a	1130a 1	229p 1	1244p 1	225p	114p	145p	249p	225p	255p	305p	354p	330p	414p	444p	435p	500p	538p	610p	620p	6	i5p 73	3p 819	р	750p	828p	844p	858p	850p	918p	949p	910p	1015p 1	1204a 1	200a
E. San Gabriel	ESG	615a	846a	855a	*		1011a		1040a	1111a	1100a	•	7		1211p		246p			131p		306p	*	•	322p	411p	347p	431p	501p	*	517p	555p	•	637p		75	Op 836	р		845p	901p	915p	•	935p	1006p	927p	•		
Ontario				907a	•		1023a			1123a			•		1223p	1	258p	113p		143p		318p	•	•	334p	423p	359p	443p	513p	*	529p	607p	•	649p		* 80	2p 848	р				927p	•	947p	1018p	939p	•		
Riverside					*		1035a			1135a			7		1235p		110p			155p		330p	*	•	346p	435p	411p	455p	525p	*	541p	619p	•	701p		* 81	4p 900	р				939p	•	959p	1030p	951p	•		
Temecula					*		1052a			1152a			•		1252p		127p			212p		347p	•	•	403p	452p	428p	512p	542p	*	558p	636p	•	718p			1p 917			926p	942p	956p	•	1016p	1047p	1008p	•		
Escondido							1107a			1207p			7		107p		142p			227p		402p	*	•	418p	507p	443p	527p	557p	*		651p	•	733p			6p 932					1011p			1102p				
Mira Mesa							1117a			1217p			•		117p		152p			237p		412p	•		428p	517p	453p	537p	607p	*	623p	701p		743p			6p 942				1007p				1112p				
San Diego	SD	7282	9592	1008a	9222		1124a		1153a	1224n	1213n	1137a	1207n		124n		159n	214n		244n		419n	327n	357n	435n	524n	500n	544n	614n	539n	630n	708n	712n	750n	7	7n 90	3n 949	n		958n	1014n	1028n	954n	1048n	1119n	1040n	1117n		

SAN	DIE	GO	— s	ACI	RAM	IENT	го	NO	RTH	BOL	JND	SER	VICE							
TRAIN											10		12	13	14	15	16		18	19
SERVICE TYP	E >	SUB	SL	L	E-	SUB	E _r	S	L	SUB	E	SUB	L	SUB	S	E	S	R	E	L
San Diego	SD	450a	515a	545a	600a	625a	700a	835a	840a	1000a		1200p	145p	245p	345p		445p	500p		740p
Mira Mesa	MIR	457a	522a	552a	607a	632a	707a	*	847a	1007a		1207p	152p	252p	•		*	507p		747p
Escondido	ESC	507a	532a	602a	617a	642a	717a	*	857a	1017a		1217p	202p	302p	*		*	517p		757p
Temecula	TEM	522a	547a	617a	632a	657a	732a	*	912a	1032a		1232p	217p	317p	•		*	532p		812p
Riverside	RIV	539a	604a	634a	649a	714a	749a	*	929a	1049a		1249p	234p	334p	*		*	549p		829p
Ontario	ONT	551a	616a	646a	701a	726a	801a	*	941a	1101a		101p	246p	346p	*		*	601p		841p
E. San Gabriel	ESG	603a	628a	658a	713a	738a	813a	*	953a	1113a		113p	258p	358p	*		*	613p		853p
Los Angeles	LA	620a	645a	715a	730a	755a	830a	935a	1010a	1130a	1230p	130p	315p	415p	445p	530p	545p	630p	640p	910p
Burbank	BUR	631a	*	726a	•	806a	*	*	1021a	1141a	•	141p	326p	426p	*	•	*	641p	•	921p
Santa Clarita	SC	646a	*	741a	•	821a	*	*	1036a	1156a	•	156p	341p	441p	*	•	*	656p	•	936p
Bakersfield	BAK	•	734a	813a	•	853a	*	1024a	1108a	1228p	*	228p	413p	•	534p	•	634p	728p	•	1008p
Tulare	TUL	•	•	839a	•	*	*	*	1134a	•	•	*	439p	•	•	•	*		•	1034p
Fresno	FRO	*	811a	856a	•	928a	*	1101a	1151a	103p	*	303p	456p	*	611p	•	711p		•	1051p
Merced	MER	*	*	917a	•	*	*	*	1212p	*	•	*	517p	*	*	•	*		•	1112p
Modesto	MOD	•	843a	934a	*	*	*	1133a	1229p	*	•	*	534p	*	643p	•	743p		•	1129p
Stockton	STO	822a	855a	946a	•	1004a	*	1145a	1241p	139p	•	339p	546p	617p	655p	*	755p		•	1141p
Sacramento	SAC	844a	917a	1008a	941a	1026a	1041a	1207p	103p	201p	239p	401p	608p	639p	717p	739p	817p		849p	1203a

TRAIN #								7	8	9	10	11	12	13	14	15	16	17	18	19
SERVICE TYPE		R	SUB	SUB	- 7	F	s	E	s	,	SUB	pt.	SUB	SUB	144	S	F	S	E	19
Sacramento 5		n	520a	645a	710a	730a	755a	830a	930a	1010-					440-	-		_		000-
										1010a	1145a	1230p	155p	300p	410p	450p	505p	525p	605p	900p
Stockton			542a	707a	732a	*	817a	*	952a	1032a	1207p	*	217p	322p	432p	512p		547p	*	922p
Modesto M			*	*	744a	•	829a	*	1004a	1044a	*	*	*	*	444p	524p		559p	•	934p
Merced I	MER		*	*	801a	*	*	*	*	1101a	*	*	*	*	501p	*		*	•	951p
Fresno I	FRO		*	*	822a	•	901a	*	1036a	1122a	1243p	*	253p	*	522p	556p		631p	*	1012p
Tulare	TUL		*	*	839a	•	*	•	*	1139a	*	•	*	*	539p	*		•	•	1029p
Bakersfield I	BAK	600a	•	817a	905a	•	938a		1113a	1205p	118p	•	328p	*	605p	633p		708p	•	1055p
Santa Clarita	sc	632a	718a	849a	937a	•	*		*	1237p	150p		400p	456p	637p	*		•		1127p
Burbank B	BUR	647a	733a	904a	952a		*		*	1252p	205p		415p	511p	652p	*		•		1142p
Los Angeles	LA	658a	744a	915a	1003a	939a	1027a	1039a	1202p	103p	216p	239p	426p	522p	703p	722p	714p	757p	814p	1153p
San Gabriel I	ESG	715a	801a	932a	1020a				*	120p	233p	256p	443p	539p	720p					
Ontario (TNC	727a	813a	944a	1032a				*	132p	245p	308n	455p	551p	732p					
Riverside	RIV	739a	825a	956a	1044a				*	144n	257p	320n	507p	603n	744n					
Temecula 1	TEM	756a	842a	1013a	1101a				*	201p	314p	337p	524p	620p	801p					
Escondido I		811a	857a	1028a						216p	329p	352p	538p	635p	816p					
Mira Mesa		821a	907a	1038a						226p	339p	402n	548p	645n	826p					
	SD	828a	914a		1133a	1041a			104p	233p	346p	409n	556p	652p	833p	824p		859p		

SAC	RAN	/EN	то -	– S/	AN F	RAI	NCIS	sco											
TRAIN SERVICE TYP			2 L	3 S	4 L	5	6 S		8 L	9 S	10	11 L	12	13 L	14	15	16 L	17	18 L
Sacramento	SAC	525a	610a	700a	800a	915a	1000a	1005a	1045a	1100a	1220p	200p	300p	400p	525p	615p	735p	820p	930p
Stockton	STO	547a	632a	•	822a	•	•	1027a	1107a	•	•	222p	•	422p	•		757p	•	952p
Modesto	MOD	559a	644a	•	834a	•	•	1039a	1119a	-	•	234p	•	434p	•		809p	•	1004p
Merced	MER	616a	701a	•	851a	•	•	1056a	1136a	•	•	251p	•	451p			826p	•	1021p
Los Banos	LB	633a	718a	•	908a	•	•	1113a	1153a	-	•	308p	•	508p	•	-	842p	•	1038p
Gilroy	GIL	649a	734a	•	924a	•	•	1129a	1209p	-	•	324p	•	524p	•	-	859p	•	1054p
San Jose	SJ	704a	749a	812a	939a	1027a	1112a	1144a	1224p	1212p	132p	339p	412p	539p	637p	727p	914p	932p	1109p
Rewood City	RC	720a	805a	•	955a	•	•	1200p	1240p	•	•	355p	•	555p	•	•	930p	•	1125p
SFO	SFO	731a	816a	•	1006a	•	•	1211p	1251p	*	•	406p	•	606p	•		941p	•	1136p
San Francisco	SF	745a	830a	845a	1020a	1100a	1145a	1225p	105p	1245p	205p	420p	445p	620p	710p	800p	955p	1005p	1150p

SAN	FR/	иис	ISC	o –	SAC	CRA													
TRAIN SERVICE TYP			2 S	3 L	4 S		6 S		8	9 S	10 L	11 S	12	13 L	14	15 L	16	17 L	18 L
San Francisco	SF	530a	600a	625a	650a	735a	945a	1040a	1140a	1245p	140p	300p	340p	400p	455p	515p	620p	800p	940p
SFO	SFO	544a	•	639a	•	749a	•	•	1154a	•	154p	•	•	414p	•	529p	•	814p	1002p
Redwood City	RC	555a	•	650a	•	800a	•	•	1205p	•	205p	•	•	425p	•	540p	•	825p	1014p
San Jose	SJ	611a	631a	706a	721a	816a	1016a	1111a	1221p	116p	221p	331p	411p	441p	526p	556p	651p	841p	1031p
Gilroy	GIL	626a	•	721a	•	831a	•	•	1236p	•	236p	•	•	456p	•	611p	•	856p	1048p
Los Banos	LB	642a	•	737a	•	847a	•	•	1252p	•	252p	•	•	512p	•	627p	•	912p	1104p
Merced	MER	659a	•	754a	•	904a		•	109p		309p	•	•	529p	•	644p	•	929p	1119p
Modesto	MOD	716a	•	811a	•	921a	•	•	126p	•	326p	•	•	546p	•	701p	•	946p	1135p
Stockton	STO	728a	•	823a	•	933a	•	•	138p	•	338p	•	•	558p	•	713p	•	958	1146p
Sacramento	SAC	750a	745a	845a	835a	955a	1130a	1225p	200p	230p	400p	445p	525p	620p	640p	735p	805p	1020p	1200a

STATIONS		s	D	M	IR	ES	ic.	TE	M	В	IV	O	NT	ES	:G		Α	ВІ	IR	S	C	BA	ΛK
		Adv.	Full	_	Full			Adv.	Full	Adv.	Full	Adv.	_	Adv.									
San Diego	SD	-	-	-	6	-	8	-	9	17	30	17	31	17	31	18	32	18	33	19	33	20	36
Mira Mesa	MIR	-	6	-	-	-	6	-	8	17	30	17	30	17	31	18	32	18	32	19	33	20	36
Escondido	ESC	-	8	-	6	-	-	-	7	16	29	17	30	17	30	17	31	18	32	18	32	20	35
Temecula	TEM	-	9	-	8	-	7	-	-	-	7	-	8	-	9	-	11	17	31	18	31	19	34
Riverside	RIV	17	30	17	30	16	29	-	7	-	-	-	6	-	7	-	9	16	29	17	30	18	33
Ontario Airport	ONT	17	31	17	30	17	30	-	8	-	6	-	-	-	6	-	8	16	29	16	29	18	32
E. San Gabriel	ESG	17	31	17	31	17	30	-	9	-	7	-	6	-	-	-	7	16	28	16	29	18	32
L.A. Union Station	LA	18	32	18	32	17	31	-	11	-	9	-	8	-	7	-	-	-	6	-	7	17	31
Burbank Airport	BUR	18	33	18	32	18	32	17	31	16	29	16	29	16	28	-	6	-	-	-	6	17	30
Santa Clarita	sc	19	33	19	33	18	32	18	31	17	30	16	29	16	29	-	7	-	6	-	-	17	30
Bakersfield	BAK	20	36	20	36	20	35	19	34	18	33	18	32	18	32	17	31	17	30	17	30	-	-
Tulare/Kings Co.	TUL	22	39	22	39	21	38	21	37	20	36	20	35	19	34	19	33	18	33	18	32	16	29
Fresno	FRO	23	41	22	40	22	40	22	38	21	37	20	36	20	36	20	35	19	34	19	34	17	31
Los Banos	LB	24	43	24	43	24	42	23	41	22	40	22	39	22	39	21	38	21	37	20	36	19	33
Gilroy	GIL	25	45	25	44	24	44	24	42	23	41	23	40	22	40	22	39	21	38	21	38	19	35
San Jose	SJ	26	46	25	46	25	45	24	44	24	42	23	42	23	41	22	40	22	40	22	39	20	36
Redwood City	RC	26	47	26	46	26	46	25	45	24	43	24	43	23	42	23	41	23	41	22	40	21	37
S.F. Airport	SFO	26	47	26	47	26	46	25	45	24	44	24	43	24	42	23	41	23	41	23	40	21	37
Downtown S.F.	SF	27	48	26	47	26	47	26	46	25	44	24	44	24	43	24	42	23	42	23	41	21	38
Merced	MER	24	42	24	42	23	41	23	40	22	39	21	38	21	38	21	37	20	36	20	36	18	33
Modesto	MOD	25	44	24	44	24	43	23	42	23	41	22	40	22	39	21	38	21	38	21	37	19	34
Stockton	STO	25	45	25	45	25	44	24	43	23	42	23	41	23	41	22	40	22	39	21	38	20	35
Sacramento	SAC	26	47	26	47	26	46	25	45	24	44	24	43	24	42	23	41	23	41	22	40	21	37

Ticket Prices:

Average expected ticket fares between stations are shown in 1999 dollars. The fares differ according to the distance traveled, and whether or not they are purchased in advance. Actual ticket prices will be developed by the operator based on market conditions, such as distance, time of travel, advanced purchase, and special discounts for frequent travelers, families and seniors. A special "commuter" rate applies to the short-distance trips within the Los Angeles, San Francisco Bay Area and San Diego urban region where stations are spaced much closer together and trains travel at reduced speeds.

STATIONS		Adv.	Full	Adv.	_	Adv.	В	Adv.		Adv.	_	Adv.	C	Adv.	FUII	S	_	MI		Adv.	_	Adv.	_	S/A	
																Adv.		Adv.							
San Diego	SD	22	39	23	41	24	43	25	45	26	46	26	47	26	47	27	48	24	42	25	44	25	45	26	47
Mira Mesa	MIR	22	39	22	40	24	43	25	44	25	46	26	46	26	47	26	47	24	42	24	44	25	45	26	47
Escondido	ESC	21	38	22	40	24	42	24	44	25	45	26	46	26	46	26	47	23	41	24	43	25	44	26	46
Temecula	TEM	21	37	22	38	23	41	24	42	24	44	25	45	25	45	26	46	23	40	23	42	24	43	25	45
Riverside	RIV	20	36	21	37	22	40	23	41	24	42	24	43	24	44	25	44	22	39	23	41	23	42	24	44
Ontario Airport	ONT	20	35	20	36	22	39	23	40	23	42	24	43	24	43	24	44	21	38	22	40	23	41	24	43
E. San Gabriel	ESG	19	34	20	36	22	39	22	40	23	41	23	42	24	42	24	43	21	38	22	39	23	41	24	42
L.A. Union Station	LA	19	33	20	35	21	38	22	39	22	40	23	41	23	41	24	42	21	37	21	38	22	40	23	41
Burbank Airport	BUR	18	33	19	34	21	37	21	38	22	40	23	41	23	41	23	42	20	36	21	38	22	39	23	41
Santa Clarita	sc	18	32	19	34	20	36	21	38	22	39	22	40	23	40	23	41	20	36	21	37	21	38	22	40
Bakersfield	BAK	16	29	17	31	19	33	19	35	20	36	21	37	21	37	21	38	18	33	19	34	20	35	21	37
Tulare/Kings Co.	TUL	-	-	16	28	17	31	18	32	19	33	19	34	19	35	20	35	17	30	18	31	18	33	19	34
Fresno	FRO	16	28	-	-	16	29	17	31	18	32	18	33	19	33	19	34	16	28	17	30	17	31	18	33
Los Banos	LB	17	31	16	29	-	-	-	7	-	9	-	11	-	12	-	12	16	28	17	30	17	31	18	33
Gilroy	GIL	18	32	17	31	-	7	-	-	-	7	-	8	-	9	-	10	16	29	17	31	18	32	19	34
San Jose	SJ	19	33	18	32	-	9	-	7	-	-	-	6	-	7	-	8	17	31	18	32	19	33	20	35
Redwood City	RC	19	34	18	33	-	11	-	8	-	6	-	-	-	6	-	7	18	31	19	33	19	34	20	36
S.F. Airport	SFO	19	35	19	33	-	12	-	9	-	7	-	6	-	-	-	6	18	32	19	34	19	35	20	37
Downtown S.F.	SF	20	35	19	34	-	12	-	10	-	8	-	7	-	6	-		18	32	19	34	20	35	21	37
Merced	MER	17	30	16	28	16	28	16	29	17	31	18	31	18	32	18	32	-	-	16	28	16	29	17	31
Modesto	MOD	18	31	17	30	17	30	17	31	18	32	19	33	19	34	19	34	16	28		-	15	28	17	30
Stockton	STO	18	33	17	31	17	31	18	32	19	33	19	34	19	35	20	35	16	29	15	28	-	-	16	28
Sacramento	SAC	19	34	18	33	18	33	19	34	20	35	20	36	20	37	21	37	17	31	17	30	16	28	-	-

Intra-regional or "Commuter" Fares

Intercity Fares (Advanced Purchase = Adv.; Full Fare = Full)